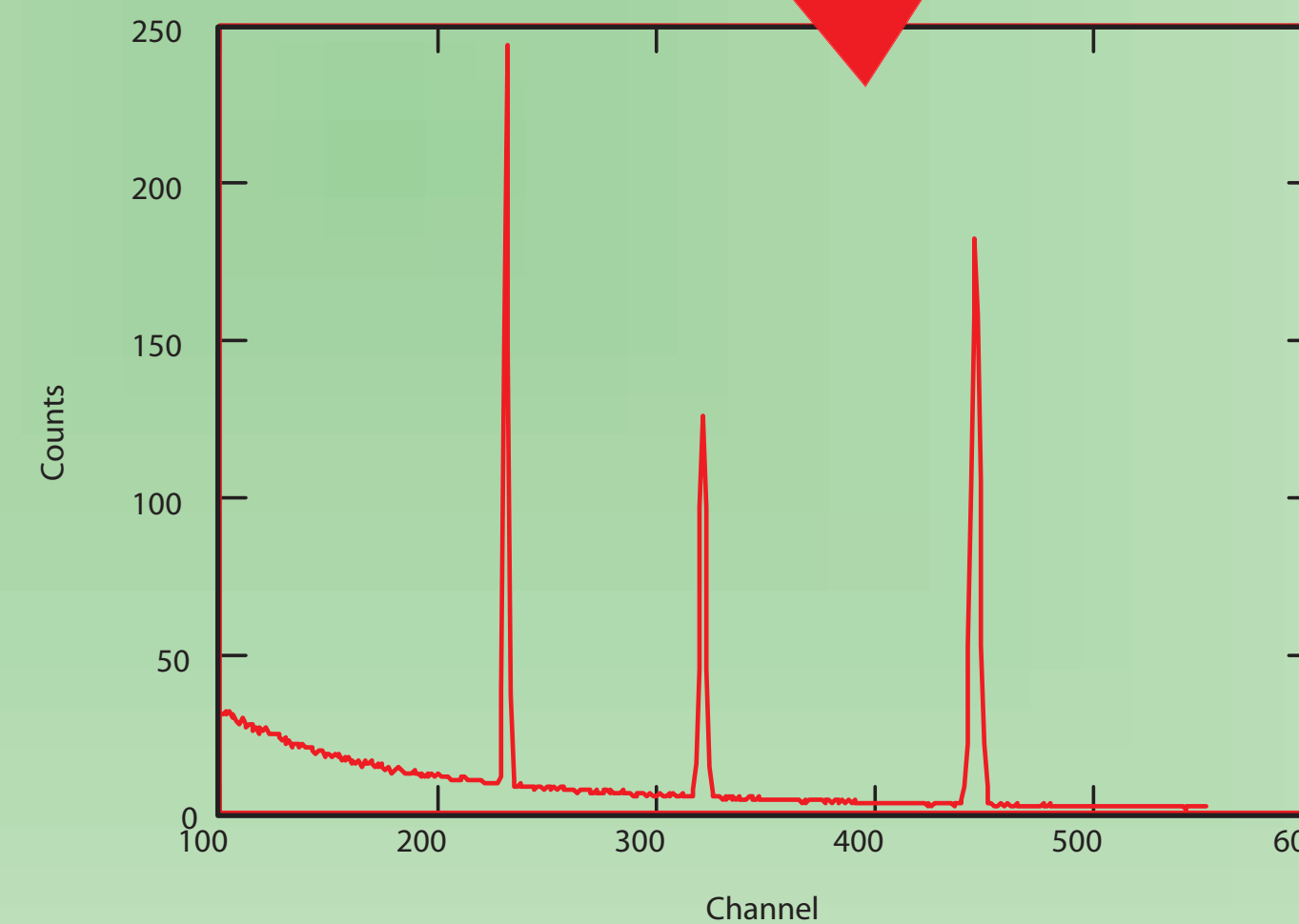
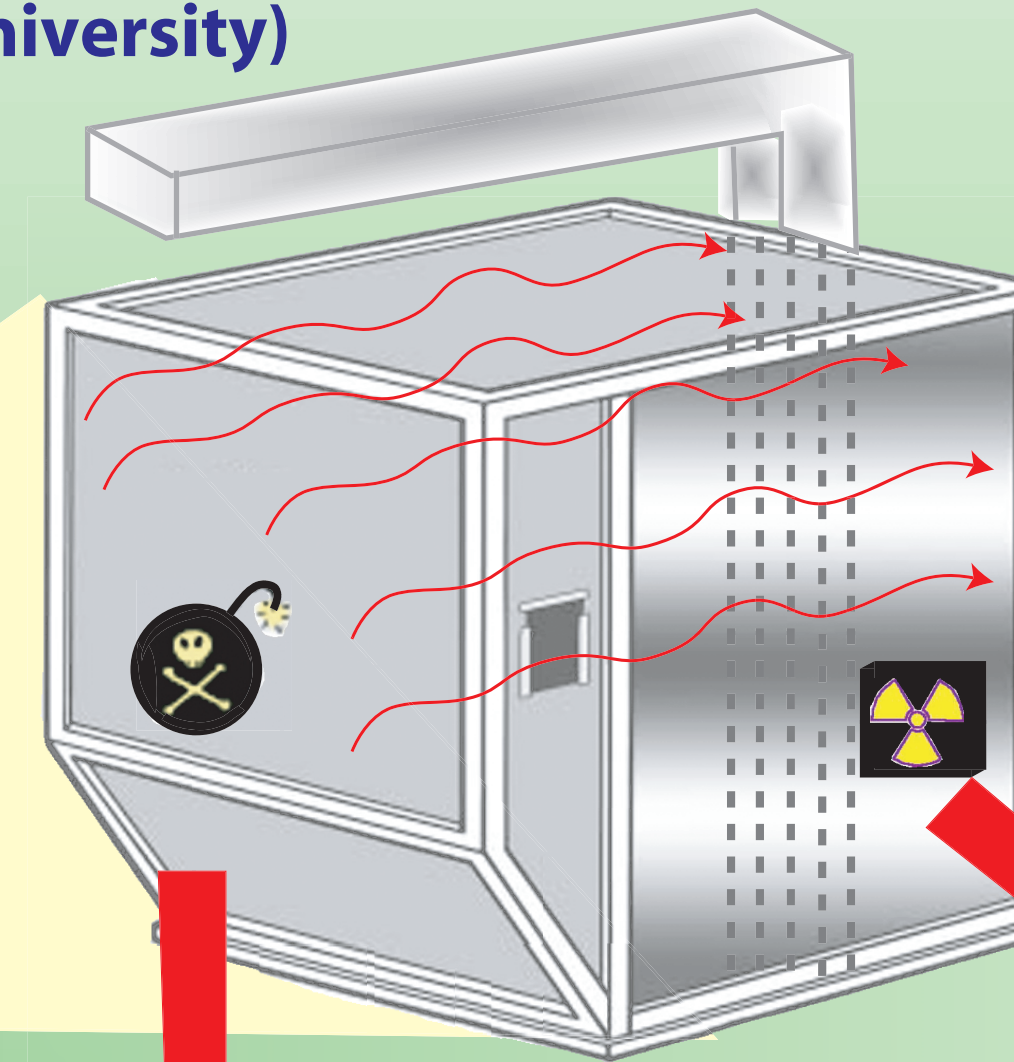
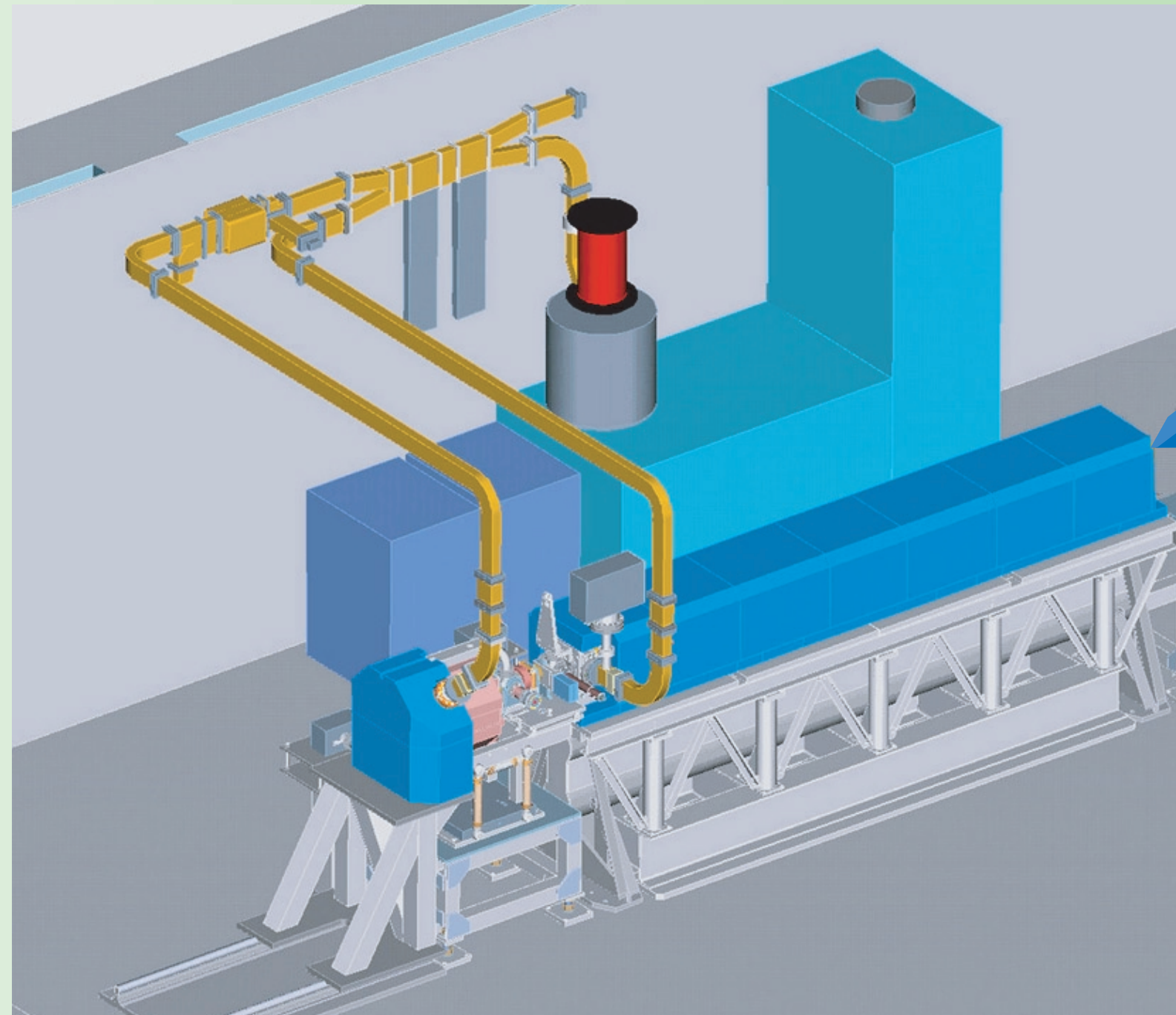
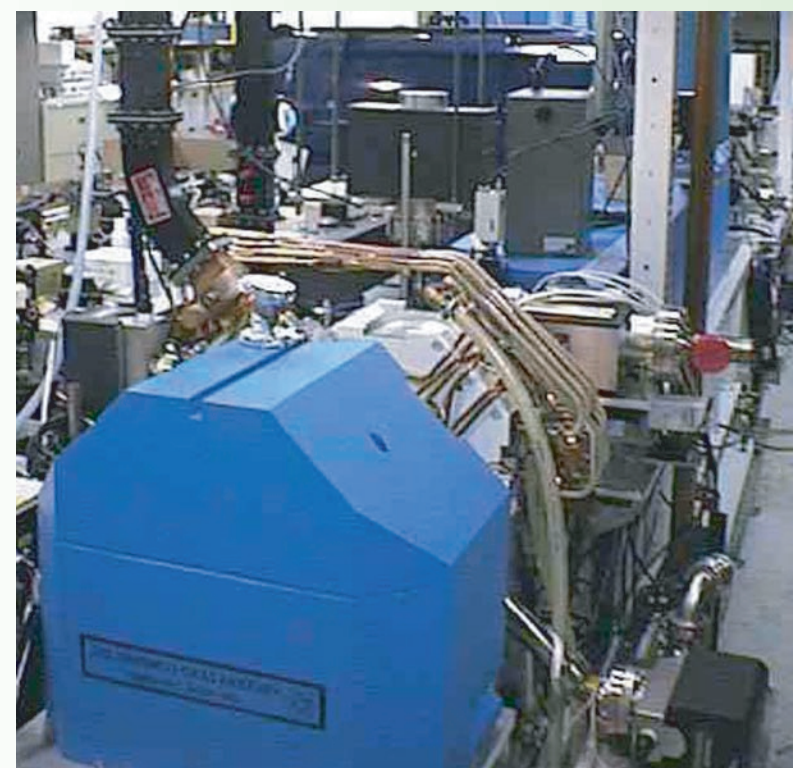


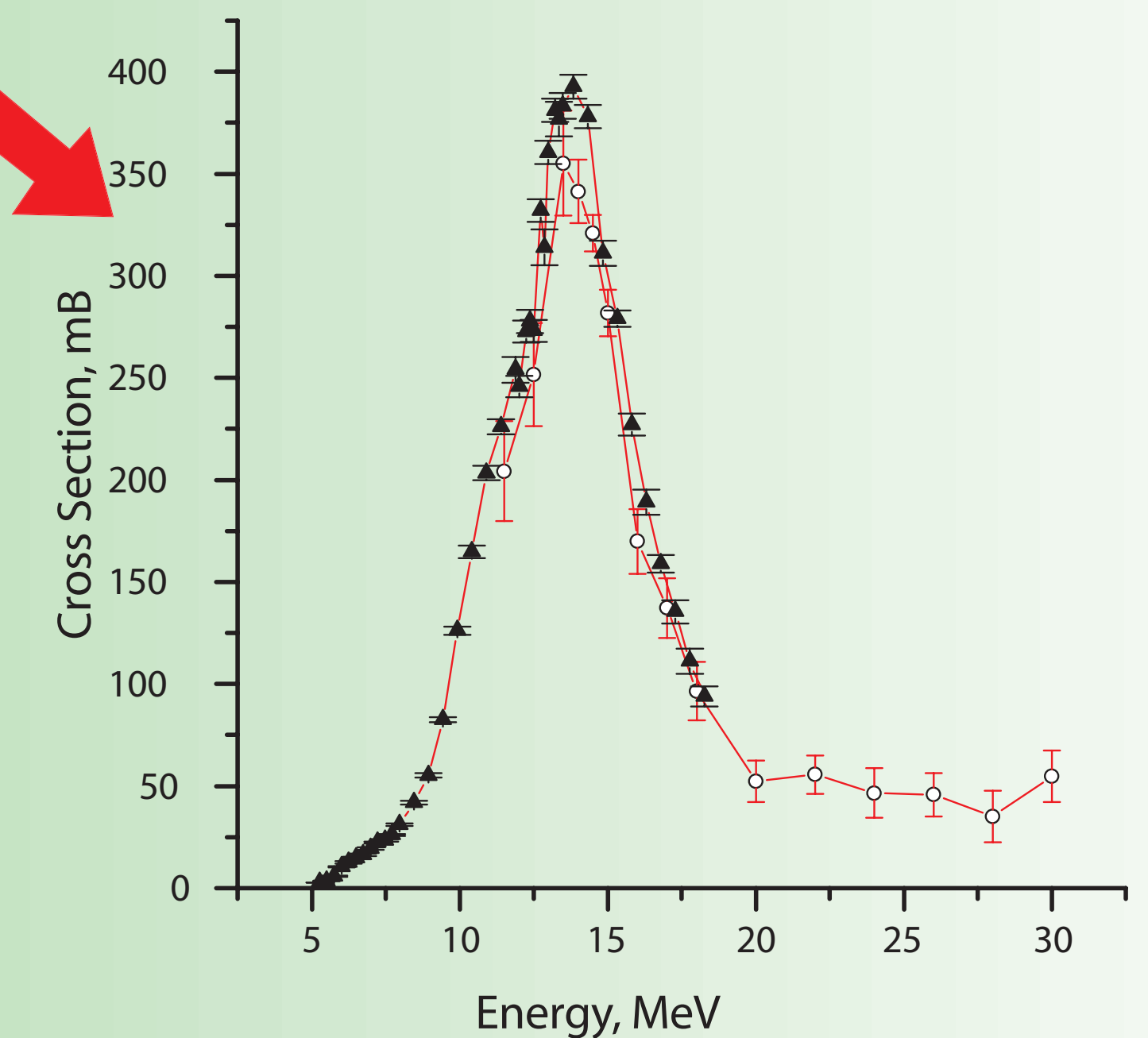
Thomas Jefferson National Accelerator Facility Identification of Explosives and Fissile Material using Pulsed Gamma Analysis

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*AES 50 MeV accelerator similar to the
proposed PGA source*



Gamma-spectrum. Explosive Detection System (EDS) simulation results for TNT



Photofission cross-section for ²³⁵U used for simulation of Fissile Material Detection System

- Pulsed Gamma Analysis (PGA) permits simultaneous detection of explosives, shielded fissile material, and Radiation Dispersion Devices ('dirty bombs') by generating characteristic signatures
- Large cargo containers or tanks filled with liquid can be interrogated
- Promises affordability with high throughput and low false alarm rate
- Relatively compact package can be made transportable
- Accelerator and detector technology exists requiring minimal development

	Year 1	Year 2	Year 3
Proof of principle experiments	=====		
System definition	=====		
Design and fabricate prototype		=====	
Detector development		=====	
Integration & Demonstration			=====